

Latest Achievements in the Zehbe Research Group

Awards and Grants:

- **(Zehbe I)** Virus-host interactions in the context of natural human papillomavirus type 16 E6 gene variants. NSERC Discovery Grant (April 2015 – March 2020)
- **(Zehbe I, Tanha J, Curiel L)** High intensity focused ultrasound and newly engineered single domain antibodies for non-invasive treatment of human papillomavirus-related cervical cancer. CIHR Collaborative Health Research Project (July 2015 – June 2018)
- **(Zehbe I)** Arts-integrated education to adapt and communicate culturally considerate cervical screening. CIHR (July 2017 – June 2018)
- **(Jackson R)** An Immune-competent 3D model and bioinformatics tool development for HPV16 E6 variants. NSERC Alexander Graham Bell Doctorate Award (January 2014 – December 2017)
- **(Roulston K)** Characterizing HPV integration sites in clinical samples. NSERC Undergraduate Student Research Award (May 2017 – August 2017)
- **(Alexander K)** Human papillomavirus Cre-LoxP mediated recombination in immune-competent skin culture. NSERC Undergraduate Student Research Award (May 2017 – August 2017)
- **(Villa P)** RNAi to determine downstream effects of HPV16 E6. NSERC Master's Award (September 2016 – August 2017)
- **(Togtema M)** Engineering and applications of single domain antibodies to target human papillomavirus 16. NSERC Doctoral Award (September 2014 – August 2017)
- **(Zehbe I)** Alternative cervical cancer screening study, Lakehead University. Council of Ontario Universities Research Matters Award (2017)

Recent Publications:

- **Gibb C et al.** (2017). Pathogen-Host Analysis Tool (PHAT): an Integrative Platform to Analyze Pathogen-Host Relationships in Next-Generation Sequencing Data. bioRxiv preprint.
- **Togtema et al.** (2017). Small interfering RNA targeting the human papillomavirus 16 E6 oncogene: an outlook on current approaches. [Submitted to Future Medicine – Nanomedicine]
- **Abraham et al.** (2017). In vivo 3T magnetic resonance imaging using a biologically specific contrast agent for prostate cancer: a nude mouse model. J Nanotechnology. 2017.

- **Cunningham S et al.** (2017) Variants of human papillomavirus type 16 differentially deregulate sugar metabolism and hypoxia signaling in permissive human keratinocytes. [Accepted to the Journal of General Virology]

Conference Publications:

- **Roulston K, Jackson R, Shahi A, Zehbe I.** (October 2017). Analogies of transposable elements and a cancer-causing DNA virus. EMBO/EMBL Symposium the Mobile Genome: Genetic and Physiological Impacts of Transposable Elements, Heidelberg, Germany.
- **Jackson R, Togtema M, Bernard J, Zehbe I.** (May 2017) Langerhans cells in the context of human papillomavirus infection – an aspect of virus-host-interactions. Tumour Immunology Meets oncology, Halle, Germany.
- **Jackson R, Togtema M, Bernard J, Zehbe I.** (October 2016). An in vitro 3D organotypic model to study Langerhans cells in the context of human papillomavirus infection: crossroads between host and pathogen. Coldspring Harbour Conference, Immunity in Health in Disease, Awaji, Japan.